

MIC-3031/14

14-slot CompactPCI™
Enclosure with CT Bus & Rear I/O



Features

- Fourteen 6U CompactPCI slots
- Front and rear I/O support
- H.110 CT bus
- Device bay accommodates up to five devices
- Redundant power supply
- Hot-swap compliant backplane
- Hot-swap fans
- Integrated intelligent fault detection and alarm notification

Introduction

The MIC-3031/14 is a 12U-high enclosure with 14 CompactPCI™ slots for rack mounting. It supports H.110 CT bus and rear panel I/O, and is ideal for CTI applications. The MIC-3031/14's device bay accommodates peripheral devices such as hard disk drives, floppy disk drives, and CD/DVD ROM drives. It also provides redundant power supplies for high reliability. The MIC-3031/14 is well-suited for performance demanding applications.

Hot-Swap Passive Backplane with H.110 CT Bus

The 6U-sized 14-slot backplane of the MIC-3031/14 supports 32-bit or 64-bit (optional) operation. The backplane complies with PICMG 2.1 Hot-swap Specification. Users can build hot-swap systems with hot-swappable CompactPCI boards and software.

The P4 connectors of peripheral slots are defined as H.110 CT bus for TDM signals of CTI applications. They comply with PICMG 2.5 Computer Telephony Specifications. The P3 and P5 connectors on the backplane are used for rear panel I/O. Users can connect devices to the rear transition boards, and the front boards are free to be inserted and removed without any wiring hassles.

Optimal Cooling Airflow with Hot-swap Fans

A 2U space underneath the card slots accommodates three 86-CFM high-speed fans to provide forced cooling air into the system. The fans are individually hot-swappable, allowing users to replace any of the fans without interrupting the operation of the system. The fan's tachometer output enables the alarm module to monitor the speed of the fans. A protective circuit has been designed into the fan backplanes, to reduce spikes and noise during fan hot-swapping. This design allows users to replace new fans safely without turning the system off.

Device Bay with Door Protection

The device bay accommodates up to five devices, including two 3.5"

devices and three 3.5" or 5.25" devices. Standard HDDs and FDDs can be installed, so there is no need for expensive special devices. The front-access device bay circumvents the need to disassemble the chassis during device replacement, yielding the shortest MTTR for maintenance.

System Fault Detection and Alarm Notification

The MIC-3031/14 integrates an intelligent alarm module, the MIC-3921, to monitor and report internal conditions. The system's status (including temperature, power voltage levels and fan speed) can be easily checked from its LCD message display. Three relays can be activated by different alarm levels to drive external devices. The alarm module's serial port can be configured as RS-232 or RS-485 or linked to a modem, to communicate to a remote host for real time monitoring, module configuration and alarm reporting. The serial port connector and relay terminals are located on the back of the enclosure for easy access.

An easy-to-use software utility is shipped with the MIC-3031/14 to minimize the time for system integration. "PC Sentry" can run under Windows 95/98/NT, allowing the system host to communicate with one or more alarm modules through the serial port for configuration, alarm level setting, real-time status display, alarm event logging, and so on.



Hot-swap fans



Specifications

- **Construction:** Aluminum frame and galvanized sheet steel
- **Device bay:** Accommodates up to five devices, including two 3.5" devices and three 5.25"/3.5" devices. Front removable
- 21-slot space (84 TE), 14 CompactPCI slots, including one system slot and 13 peripheral slots
- 32-bit CompactPCI bus (64-bit available upon request)
- H.110 CT bus complies with PICMG 2.5 R1.0 Computer Telephony Specification
- "Hot swap" platform complies with PICMG 2.1 R 1.0 Hot Swap Specification
- **Dimensions (W x H x D, mounting flanges not included):** 440 x 533 x 342 mm (17.3" x 21" x 13.5")
- **Weight:** 20 kg (44 lb)
- **Operating temperature:** 0 ~ 50° C (32 ~ 122° F)
- **Relative humidity:** 10 ~ 95% @ 40° C, non-condensing
- **Shock:** 10 G (operating); 30 G (storage/transit)
- **Random vibration:** 1.0 Grms

Backplane

- 14 CompactPCI slots (one system slot and 13 peripheral slots)
- **Bus width:** 32-bit (64-bit upon request)
- Supports H.110 CT bus
- 8-layer PCB, 3.0 mm thick
- Separate power and ground planes
- Three ATX power connectors for connecting standard ATX power supplies
- Complies with PICMG 2.0, Ver. 2.1 CompactPCI Specification and PICMG 2.1, Ver. 1.0 Hot Swap Specification
- Complies with PICMG 2.5, Ver. 1.0 Computer Telephony Specification
- **V I/O voltage:** 3.3 V or 5 V, jumper selectable
- Logic Ground and Chassis Ground can be isolated or common
- **Dimensions (W x H):** 325.2 x 262.2 mm

Hot-swap Fans

- **Air flow:** Three 86-CFM fans, providing 258 CFM in total
- **Power consumption:** 0.45 A @ 12 V per fan, 1.3 A total
- **Rated fan speed:** 2170 rpm
- **Life span:** 50,000 hours @ 25° C

N+1 Redundant Power Supply

- **Input:** 90 ~ 264 V_{AC} @ 47 ~ 63 Hz
- **Output:** +3.3 V @ 36 A, +5 V @ 58 A, +12 V @ 20 A, -12 V @ 1.5 A
- **Minumum load:** +3.3 V @ 0.3 A, + 5 V @ 2 A, +12 V @ 0.5 A
- **Max output:** 560 W + 280 W redundant, 290 W for 5 V and 3.3 V
- **MTBF:** 100,000 hours @ 70% load
- **Safety:** UL/CUL/TUV/CE



Front removable devices and redundant power supply



Alarm output on the rear side

Ordering Information

- **MIC-3031/14-12R:** CompactPCI™ chassis with 14-slot backplane, fan tray module, redundant power supply, and alarm module